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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,628	07/07/2005	Tomo Kishigami	1190-0609PUS1	8286

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EXAMINER	
YODICHKAS, ANEETA	

ART UNIT	PAPER NUMBER
2627	

NOTIFICATION DATE	DELIVERY MODE
11/09/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/541,628	KISHIGAMI ET AL.	
	Examiner	Art Unit	
	Aneeta Yodichkas	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 10, 11, 13, 20, 28, 29 and 31* is/are rejected.

7)☒ Claim(s) *2-9,12,14-19,21-27,30,32 and 33* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/20/2010 has been entered.

Claim Objections

Claim 12 is objected to because of the following informalities: In line 5, NA1 should be NA2. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 20 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. U.S. Patent No. 7,295,500 B2 to *Nakano et al.*

As to **claim 20**, *Nakano* discloses an optical recording method comprising the steps of: reading recommended write strategy parameters from an optical recording

medium on which the recommended write strategy parameters including recommended pulse width value have been recorded (Fig. 1, column 12, lines 19-31, where the recommended write strategy parameters, such as pulse width, is read from the disk); determining a pulse width of write strategy parameters including a leading pulse width parameter to be used in recording, based on the recommended pulse width value and characteristics of an optical system of an optical pickup of an optical recording device used in recording, the determined pulse width being calculated using a predetermined calculation formula (Fig. 1, column 12, lines 32-49, where the asymmetry value is calculated in step (S13) based on the recommended recording pattern recorded in step (S12)); and writing to the optical recording medium by use of the optical recording device, using a write strategy having the determined pulse width (Fig. 11, columns 20-21, lines 55-2, where in step (S48), writing to the recording medium using the determined pulse width is performed).

As to **claim 31**, claim 20 discloses similar limitations above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,295,500 B2 to *Nakano et al.* in view of U.S. Patent Pub. No. 2002/0196719 A1 to *Morishima*.

As to **claim 1**, *Nakano* discloses an optical recording method comprising the steps of: reading recommended write strategy parameters from an optical recording medium on which the recommended write strategy parameters have been recorded (Fig. 1, column 12, lines 19-31, where the recommended write strategy parameters, such as pulse width, is read from the disk); determining a pulse width of write strategy parameters to be used in recording, based on the recommended write strategy parameters value, and characteristics of an optical system of an optical pickup of an optical recording device used in recording (Fig. 1, column 12, lines 19-31, where the pulse widths are determined based on the default, or recommended, write strategy parameters from the manufacturer), and the determined pulse width being calculated predetermined calculation formula (Fig. 1, columns 12-13, lines 50-5, where the pulse width is calculated in step (S14)); determining an asymmetry value to be used in recording, based on the recommended write strategy parameters and characteristics of the optical system of the optical pickup of the optical recording device used in recording, the determined asymmetry value being calculated using a predetermined calculated formula (Fig. 1, column 12, lines 32-49, where the asymmetry value is calculated in step (S13) based on the recommended recording pattern recorded in step (S12)); determining an optimal recording power based upon the determined pulse width of the write strategy parameters and the determined asymmetry value (Fig. 1, columns 12-13, lines 50-5, where the optimal recording power is determined in steps (S14-S15)); and writing to the optical recording medium by use of the optical recording device, using a write strategy having both the determined pulse width and the optimal recording power

thus determined (Fig. 11, columns 20-21, lines 55-2, where in step (S48), writing to the recording medium using the determined pulse width and optimal power is performed).

Nakano is deficient in disclosing reading a recommended asymmetry value from an optical recording medium on which the recommended asymmetry value has been recorded.

However, *Morishima* discloses reading a recommended asymmetry value from an optical recording medium on which the recommended asymmetry value has been recorded (Fig. 1, paragraph 0042, where the recommended asymmetry value is the target asymmetry value, which is read from the memory).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the optical recording method for determining a pulse width of write strategy parameters as taught by *Nakano* by including reading recommended asymmetry values from an optical recording medium as taught by *Morishima.* The suggestion/motivation would have been in order to calculate a recording power value in relation to the recommended, or target, asymmetry value (Morishima, paragraph 0042).

As to **claim 13**, claim 1 discloses similar limitations above. In addition, the same motivation is used as in the rejection in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,295,500 B2 to *Nakano et al.* in view of U.S. Patent Pub. No. 2002/0196719 A1 to *Morishima* in further view of U.S. Patent Pub. No. 2003/0048709 A1 to *Van Woundenberg*.

As to **claim 10**, *Nakano* and *Morishima* are deficient in disclosing the optical recording method, wherein: the step of reading reads a recommended wavelength value from the optical recording medium; and the step of determining performs a determination based on the recommended wavelength value and the wavelength of a laser beam of the optical recording device used in recording.

However, *Van Woundenberg* discloses the optical recording method, wherein: the step of reading reads a recommended wavelength value from the optical recording medium; and the step of determining performs a determination based on the recommended wavelength value and the wavelength of a laser beam of the optical recording device used in recording (Paragraph 0006, where the Phase Encoded Part (PEP) is read on the disc, which has the information on which wavelength of light needs to be used in order to read and write to the medium).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the optical recording method that determines a pulse width of a write strategy as taught by *Nakano* and *Morishima* by including a recommended wavelength value from the optical recording medium as taught by *Van Woundenberg*. The suggestion/motivation would have been in order to use the proper recording and

reading wavelength based on the manufacturer's information on the disc (Van Woundenberg, paragraph 0006).

Claims 11 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,295,500 B2 to *Nakano et al.* in view of U.S. Patent Pub. No. 2002/0196719 A1 to *Morishima* in further view of U.S. Patent Pub. No. 2001/0014067 A1 to *Iwata et al.*

As to **claim 11**, *Nakano* discloses the optical recording method, wherein: the step of writing performs writing by use of the calculated asymmetry value (Fig. 1, column 12, lines 32-49, where the asymmetry value is calculated in step (S13)).

Nakano and *Morishima* are deficient in disclosing the determining step calculates an asymmetry value for use in recording based on the recommended asymmetry value and the numerical aperture of the objective lens of the optical recording device used in recording.

However, *Iwata* discloses the determining step calculates an asymmetry value for use in recording based on the recommended asymmetry value and the numerical aperture of the objective lens of the optical recording device used in recording (Fig. 13 and 20, paragraph 0091, where the asymmetry values shown in Fig. 20 are the result of calculated asymmetry values in relation to different numerical apertures used in the apparatus shown in Fig. 13).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the optical recording method that determines a pulse width of a write strategy as taught by *Nakano* and *Morishima* by including calculating the asymmetry value based on the numerical aperture of the objective lens as taught by

Iwata. The suggestion/motivation would have been in order to optimize the asymmetry value based on the numerical aperture of the objective lens (Iwata, paragraph 0091).

As to **claim 29**, claim 11 discloses similar limitations. In addition, *Nakano* and *Iwata* are deficient in disclosing the step of reading reads a recommended asymmetry value.

However, *Morishima* discloses the step of reading reads a recommended asymmetry value (Fig. 1, paragraph 0042, where the recommended asymmetry value is the target asymmetry value, which is read from the memory). In addition, the same motivation is used as the rejection in claim 11.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,295,500 B2 to *Nakano et al.* in view of U.S. Patent Pub. No. 2003/0048709 A1 to *Van Woundenberg*.

As to **claim 28**, *Nakano* is deficient in disclosing the optical recording method, wherein: the step of reading reads a recommended wavelength value from the optical recording medium; and the step of determining performs a determination based on the recommended wavelength value and the wavelength of a laser beam of the optical recording device used in recording.

However, *Van Woundenberg* discloses the optical recording method, wherein: the step of reading reads a recommended wavelength value from the optical recording medium; and the step of determining performs a determination based on the recommended wavelength value and the wavelength of a laser beam of the optical recording device used in recording (Paragraph 0006, where the Phase Encoded Part

(PEP) is read on the disc, which has the information on which wavelength of light needs to be used in order to read and write to the medium).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the optical recording method that determines a pulse width of a write strategy as taught by *Nakano* by including a recommended wavelength value from the optical recording medium as taught by *Van Woundenberg*. The suggestion/motivation would have been in order to use the proper recording and reading wavelength based on the manufacturer's information on the disc (Van Woundenberg, paragraph 0006).

Allowable Subject Matter

Claims 2-9, 12, 14-19, 21-27, 30, 32 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record alone, or in combination, fails to teach or render obvious, "*the step of determining a pulse width includes calculating a leading pulse width as the pulse width of the write strategy parameters for recording each mark, based on a ratio of a recommended leading pulse width parameter of the write strategy for recording each mark included in the recommended write strategy parameters with respect to the square of the recommended leading pulse width parameter of the write strategy for recording the shortest mark included in the recommended write strategy parameters*", in combination with the other limitations set forth in claim 2.

The prior art of record alone, or in combination, fails to teach or render obvious, "*if the recommended asymmetry value recorded on the optical recording medium is β1, the numerical aperture of the objective lens used for determining the recommended value is NA1, and the numerical aperture of the objective lens of the optical recording device used in recording is NA2, then the asymmetry value β2 used in recording is calculated by the formula β2=β1 + E x (NA2 - NA1)*", in combination with the other limitations set forth in claim 12.

Claims 14, 21 and 32 have similar allowable subject matter as claim 2.

Claim 30 has similar allowable subject matter as claim 12.

Claims 3-9, 15-19, 22-26 and 33 depend on allowable base claims.

Response to Arguments

Applicant's arguments with respect to claims 1, 10, 11, 13, 20, 28, 29 and 31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aneeta Yodichkas whose telephone number is (571) 272-9773. The examiner can normally be reached on Monday-Thursday 8-5, alternating Fridays, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A.Y./
11/2/10

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627